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(54) Title: ANTI-IDIOTYPE ANTI-CEA ANTIBODY MOLECULES AND ITS USE AS CANCER VACCINE

(57) Abstract: The present invention provides molecules, preferably designed immunoglobulins, suitable for use as an anti-idiotype vaccine to CEA positive tumours. The molecules induce both an MHC class I and MHC class II mediated immune response to the CEA bearing tumour cells for an efficient and sustained host anti-tumour response. The present invention provides modified versions of anti-idiotype anti-CEA antibodies, preferably mouse antibody 708, with improved vaccination properties. The modifications are related to the introduction of sequences tracts deriving from e.g. CEA, CD55 antigen and CEA cancer-specific MHC epitopes into the variable regions of said antibody molecules.

INTERNATIONAL SEARCH REPORT

PCT/EP 03/03580

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C07K16/42 C07K16/46 A61K39/395

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, MEDLINE, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 52976 A (BIOVATION LTD ;CARR FRANCIS J (GB)) 26 November 1998 (1998-11-26) cited in the application example 3 ---	1-7
X	WO 97 34636 A (HANSEN HANS ;LEUNG SHUI ON (US); IMMUNOMEDICS INC (US); LOSMAN MIC) 25 September 1997 (1997-09-25) page 24, line 1 -page 26, line 10 ---	1-7 -/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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- "A" document defining the general state of the art which is not considered to be of particular relevance
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- "X" document of particular relevance; the claimed Invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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INTERNATIONAL SEARCH REPORT

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Application No

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>DURRANT L G ET AL: "HUMAN ANTI-IDIOTYPIC ANTIBODIES CAN BE GOOD IMMUNOGENS AS THEY TARGET FC RECEPTORS ON ANTIGEN-PRESENTING CELLS ALLOWING EFFICIENT STIMULATION OF BOTH HELPER AND CYTOTOXIC T-CELL RESPONSES"</p> <p>INTERNATIONAL JOURNAL OF CANCER, NEW YORK, NY, US, vol. 92, no. 3, 1 May 2000 (2000-05-01), pages 414-420, XP001041422 ISSN: 0020-7136 cited in the application the whole document</p> <p>-----</p>	1-24
A	<p>WO 97 32021 A (DURRANT LINDY GILLIAN ;ROBINS RICHARD ADRIAN (GB); SPENDLOVE IAN () 4 September 1997 (1997-09-04) cited in the application page 7, line 11 - line 34 page 13, line 7 - line 23</p> <p>-----</p>	8,9,18, 23
P,A	<p>WO 02 058728 A (DURRANT LINDA GILLIAN ;ROBINS ADRIAN (GB); PARSONS TINA (GB); SCAN) 1 August 2002 (2002-08-01) example 5</p> <p>-----</p>	8,9,18, 23

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